

Beams Division Policy

Safety Review of Small Projects in the Beams Division

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This policy covers the safety review of projects that are not automatically subject to the review of the Fermilab ES&H section.

Significant projects are initiated with the approval of the Head of the Beams Division. Significant projects have a project leader and normally involve substantial efforts by a formal project team or members of more than one Beams Division Department. If a project involves significant hazards, the project leader will be informed that the hazardous operations are not authorized until a safety review has been completed.

The procedure for accomplishing the review is as follows:

1. The Division Head will appoint a knowledgeable person not associated with the project to conduct the review. One or more assistants may be appointed for larger projects.
2. The project leader is responsible for establishing that all hazards have been identified and mitigated.
3. The project leader is responsible for coordinating with the Operations group on any special emergency response procedures that may be required when the equipment is left unattended.
4. The project leader will arrange for standing safety committees to review relevant portions of the project when required.
5. The project leader will prepare the documentation necessary ensure safe operations and to facilitate the review.
6. The reviewer is responsible to advise the Division Head whether the project leader has identified and sufficiently mitigated hazardous project operations.
7. The reviewer will assure himself that the standing safety committees have reviewed the relevant parts of the project and that he understands the results of the review.
8. The reviewer will be expected to consult technical experts when necessary.
9. Based on the review, the Division Head will authorize the project leader to begin operations. All authorizations will be made in writing.

Smaller projects are characterized by effort contained primarily within a single department with effort coordinated by a lead scientist or engineer. Most commonly a smaller project involves fabrication of a new accelerator component. Often the component is part of a larger project that is subject to a formal safety review. Department Heads are responsible that projects with significant hazards are subjected to "peer review." In most cases, peer review will consist of a review by an engineer in the Department who was not directly associated with the design.

Employees are responsible for generating a written job hazard analysis when one is required. Employees are responsible for being familiar with the guidelines in the Fermilab ES&H manual. If the guidelines suggest that a written hazard analysis should be performed, but the employee determines that it is not necessary, he is **required to obtain verbal permission from his supervisor** before performing the work. It is the policy of the Beams Division that a written hazard analysis be prepared whenever work is performed that involves extraordinary hazards—whether or not it is suggested by the FNAL ES&H Manual guidelines. Extraordinary hazards are

defined as hazards that are more severe or different in character than are routinely encountered by individual who will perform the work. Thus, the need for a written hazard analysis depends both on the nature of the work being performed and the knowledge and experience of the individuals involved.

Day-to-day activities are not subject to a formal review. Department Heads, supervisors, and individual employees are responsible to conduct their activities in accordance with the FNAL ES&H Manual and to take all reasonable precautions to avoid injury to themselves and others. Supervisors and individual employees are expected to understand the hazards associated with their work based on their FNAL training and their technical knowledge. Employees are to seek expert assistance as necessary if they are required to work in an unfamiliar area or on an unfamiliar system.